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IN THE SPECIFICATION

Replace current page 1 of the specification with the attached markup of the replacement page 1.

A Method for Identifying T-Cell Stimulating Protein Fragments

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This is a U.S.C. 371 of Application PCT/DE99/00175 filed on 1/15/1999 and claims priority to German applications No. 198 02174.7 filed on 1/19/1998, and 198 34 932.7 filed on 7/28/1998.

The present invention relates to a method for the identification of T-cell stimulating protein fragments by means of T cell induction, a process for the preparation of protein fragments having a sequence which was found by the method according to the invention, and the use of such protein fragments for immune stimulation.

Prior art

The T-cell stimulating protein fragments comprise T cell epitopes which are specifically recognized by T cell receptors and through this recognition stimulate the T cell biosynthesis, inter alia, of cytokines secreted in the usual way.

A known method for the identification of T-cell stimulating protein fragments consists in subdividing a protein the amino sequence of which is known into individual overlapping protein fragments. The corresponding synthetically prepared protein fragments are incubated with T cells singly or in groups. After one to three weeks, cell lines or cell clones may be present which could be specifically stimulated by the protein fragment or by at least one of the protein fragments employed. The specificity of these lines or clones can be detected by cytotoxicity tests with appropriate target cells. Due to the experimental design, the stimulated cell lines or cell clones can be assigned to the corresponding T-cell stimulating protein fragments. This method is described in detail in P. Walden et al. (1996), Current Opinion in